CEMENTITIOUS MATERIALS for WASTE TREATMENT, DISPOSAL, REMEDIATION and DECOMMISSIONING WORKSHOP
AGENDA

MONDAY- December 11, 2006

Leach XS Training (Optional) 8:00 AM to 5:00PM

EARLY REGISTRATION 9:00AM to 4:00PM

AGENDA
TUESDAY- December 12, 2006 Morning Session

Welcome and Plenary Speaker

TIME	TITLE	AUTHORS/*SPEAKER	ORGANIZATION
7:30a	REGISTRATION		
8:30a	Introductions	C. Langton, [1] D. Kosson, [2] H. Sturm[1]	Savannah River National Laboratory, Aiken SC [2]Vanderbilt University, Knoxville, TN
	Welcome	W. F. Spader,[1] G. T. Wright[2]	[1]Department of Energy-Savannah River, DOE-SR [2]Savannah River National Laboratory, SRNL
	Workshop Objectives	D. Kosson,[1] C. Langton [2]	[1]Vanderbilt University, Knoxville TN [2]Savannah River National Laboratoroy, Aiken SC
9:00a	Plenary Session	M. Gilbertson	Department of Energy-Environmental Management, DOE-EM, Washington DC
9:30a	Questions		

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Session 1A. Role of Cementitious Materials in Meeting Regulatory and Stakeholder Requirements for DOE LLW Disposal: Panel Presentations and Discussion

Session Chair*: Susan Thorneloe, EPA-ORD
Session Co-Chair*: Howard Pope, DOE-SRS
Session Co-Chair*: Michelle Ewart, DOE-SRS

TIME	TITLE	AUTHORS/*SPEAKER	ORGANIZATION
9:45a	Decommissioning Project Remnant Considerations	G. Hannah	Department of Energy-Savannah River, DOE-SR, Aiken SC
10:00a		M. Jaraysi	CH2M-Hill Hanford, Inc., Hanford WA
10:15a	Impacts of Secondary Waste on Near-Surface Disposal Facility at Hanford	B. Mauss	Deparatment of Energy-Office of River Protection, DOE-ORP, Hanford WA
10:30a	Grout Attributes Important to SRS HLW Tank Closure	S. Reboul and J. Newman	Washington Savannah River Company, Aiken SC
10:45a	Break		
11:00a	Citizens Advisory Board Perspective	J. Ortaldo	Citizens Advisory Board, CAB, Aiken SC
11:15a	South Carolina DHEC Perspective	S. Sherritt	South Carolina Department of Health and Environmental Control, SCDHEC, Columbia SC
11:30a		J. Lyon	Washington State Department of Ecology, WA
11:45a		G. Helms	Environmental Protection Agency, EPA Office of Solid Waste
12:00p	NRC Perspective on the Use of Cementitious Materials in Radioactive Waste Management	D. Esh	Nuclear Regulatory Commission, Rockville MD
12:15p	Questions		
12:30p	Lunch		

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TUESDAY- December 12, 2006 Afternoon Session

Session 1B. Chemical and Mineralogical Properties and Contaminant Transport Properties of Cementitious Materials.
Session Chair*: David Kosson, Vanderbilt University
Session Co-Chair*: M. Denham, SRNL

TIME	TITLE	AUTHORS/*SPEAKER	ORGANIZATION
1:30p	Conceptual Models and Approaches to Understanding Long-Term Performance of Cementitious Waste Forms	*F. Sanchez,[1] D. S. Kosson,[1] A. Garrabrants,[1] H. van der Sloot,[2] C. Langton[3] and G. Flach[3]	[1]Vanderbilt University, Knoxville TN, [2]ECN and [3]SRNL, Aiken SC
2:00p	Estimated Contaminant Release Concentrations from Closed Hanford Tanks	*W. Deutsch, R. J. Serne, K. Cantrell, K. Krupka, M. Lindberg, C. Brown	Pacific Northwest National Laboratory, Richland WA
2:30p	Modeling and Thermodynamic Properties of Cement Hydrates to Estimate Their Stability in a Temperature Range 0-100°C: Implication in terms of Degradation	B. Huet and G. Scherer	Princeton University, Princeton NJ
300p	Break		
3:15p	Service Life Prediction for Concrete Structures	J. Marchand	Laval University, Quebec City Quebec Canada
3:45p	Reactive Transport Modeling of Leaching Tests and Long-term Processes Applied to Cementitious Waste Disposal	*L. De Windt,[a] R. Badreddine,[b] and J. van der Lee[a]	[a] Hydrodynamics and Reaction Group, Ecole des Mines de Paris (EMP), Fontainebleau, France [b] DRC, National Institute for Industrial Environment and Risks (INERIS), Verneuil/Halatte France
4:15p	Modeling Chemical Speciation and Release from Cement Stabilized Wastes using LeachXS	H. van der Sloot	Energy Research Center of the Netherlands, ECN, Netherlands
4:45p	Estimated Duration of the Subsurface Reducing Environment Produced by the Z-Area Saltstone Disposal Facility	*D. Kaplan and T. Hang	Savannah River National Laboratory, Aiken SC
5:05p	Questions		
5:15p	Reception and Poster Session		

Session 1A and Session 1B Follow-Ups

5:15p	Time and location will be provided for additional input and follow-up on topics covered in Session 1A. Discussion will be informal and coordinated by session chair and co-chair.

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WEDNESDAY- December 13, 2006 Morning Session

Session 2A. Water and Gas Transport Through Cementitious Materials
Session Chair*: Florence Sanchez, Vanderbilt University
Session Co-Chair*: Gregory Flach, Savannah River National Laboratory

TIME	TITLE	AUTHORS/*SPEAKER	ORGANIZATION
8:30a	Studies of Tritium Characterization in Concrete at the Savannah River Site	R.C. Hochel and *E. A. Clark	Savannah River National Laboratory, Aiken SC
9:00a	Measuring Liquid Permeability in Saturated Cement Paste and Concrete	G. Scherer	Princeton University, Princeton NJ
9:30a	Measuring Transport Properties in Grout	*J. L. Conca[1] and J. Wright[2]	[1] NMWU CEMRC, [2]UFA Ventures, Inc.
10:00a	Transport Properties of Concrete	D. Hooton	University of Toronto, Toronto Ontario Canada
10:30a	Break		
10:45a	The Impact of Moisture Transport on the Release of Constituents from Cement-Stabilized Materials Stored in Intermittently Saturated Environments	*A. C. Garrabrants, F. Sanchez, and D. S. Kosson	Vanderbilt University, Knoxville TN
11:00a	Diffusion of Cementitious Pore Fluids into Boom Clay from a Deep HLW Disposal Site: Modeling of a Laboratory Experiment and Long-Term Interaction	*J. Diederik, L. Wang, and P. De Canniere	Institute for Environment, Health, and Safety, SCK·CEN, Mol Belgium
11:30	Leaching of Trace Elements from Materials Stabilized with Cementitious Coal Fly Ash	C. H. Benson	University of Wisconsin-Madison, Madison WI
12:00p	Lunch		

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WEDNESDAY- December 13, 2006 Afternoon Session

Session 2B. Degradation Mechanisms and Test Methods, Durability Criteria and Long-Term Degradation Evaluation.
Session Chair*: C. Langton, SRNL
Session Co-Chair*: G. Baldwin, SRS

TIME	TITLE	AUTHORS/*SPEAKER	ORGANIZATION
1:00p	Re-Use of Waste and Behaviour of Heavy Metals: A Molecular Approach of the Transfer Mechanisms	*J. Rose,[1] P. Chaurand,[1] A. Benard,[2] and J.-Y. Bottero[1]	[1]CEREGE, CNRS Universite Paul Cezanne IFR PMSE 112 Cedex France, [2] INERIS Mediterranee, Cedex France
1:30p	Sulfate Attack of Concrete	D. Hooton	University of Toronto, Canada
2:00p	Microbial Induced Degradation of Cement-Solidified Waste Forms for Radioactive Waste Disposal	*N. Egiebor and M. Idachaba	Tuskegee University, AL
2:30p	Break		
2:45p	Technical Issues on Laboratory Methodology to Assess Long-Term Release of Contaminants from Grout/Cement in the Vadose Zone	R. J. Serne	Pacific Northwest National Laboratory, Hanford WA
3:15p	Numerical Simulation of Concrete Durability Under Coupled Deterioration Processes	D. Chen and S. Mahadevan *D. Kosson	Vanderbilt University, Knoxville TN
3:45	Past, Present and Future Research on Concrete Degradation Modeling at The National Institute of Standards and technology	K. Snyder	National Institute of Standards and Technology, Gaithersburg MD
4:15	Fluidized Bed Steam Reforming (FBSR): A Novel Process for Mineralizing Wastes	C. Jantzen	Savannah River National Laboratory
4:45	Alternatives for Low-Temperature Waste Immobilization	J. H. Westsik, Jr. and *R. J. Serne	Pacific Northwest National Laboratory, Richland WA
5:15	Questions		
5:30 to 7:00	**Poster Session and Mixer**		

Session 2A and 2B Follow-Ups

5:15p	Time and location will be provided for additional input and follow-up on topics covered in Session 1A. Discussion will be informal and coordinated by session chair and co-chair.

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THURSDAY- December 14, 2006 Morning Session

Session 3A. Long-Term Performance Predictions and Risk Assessment Integration of Cementitious Materials in PA Modeling.

Session Chair*: Andrew Garrabrants, Vanderbilt University
Session Co-Chair*: David Esh, Nuclear Regulatory Commission

TIME	TITLE	AUTHORS/*SPEAKER	ORGANIZATION
8:00a	Intermediate Long-Lived Nuclear Waste Management: An Integrated Approach to Assess the Long-Term Behavior of Cement-Based Materials in the Context of Deep Disposal	*C. Galle, H. Peycelon, P. Le Bescop, S. Bejaoui, V. L'Hostis, B. Bary, P. Bouniol, and P. Richet	CEA Saclay, Direction de l'Energie Nucleaire, DANS/DPC/SCCME, Cedex France
8:30a	Probabilistic Assessment of Long-Term Concrete Vault Durability in a Sulfate Bearing Waste Environment	*G. Flach, M. Denham, M. Phifer	Savannah River National Laboratory, Aiken, SC
9:00a	Initial Single Shell Performance Assessment for the Hanford Site	*M. P. Connelly,[1] M. N. Jaraysi,[1] and M. I. Wood[2]	[1]CH2M Hill, Hanford Group, Richland WA [2]Fluor Hanford Inc., Richland WA
9:30a	Kalman Filtering as Part of a Long-Term Monitoring Strategy	Ken Snyder	National Institute of Standards and Technology, Gaithersburg MD
10:00a	Evaluating the Performance of Portland Cement Compositions in the repository Environment – Status Report	F. Glasser	University of Aberdeen, Aberdeen Scotland
10:30a	Break		

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Session 3B. Path Forward: Key Gaps in Knowledge and Practice, Opportunities for Alternative Approaches and Improvements.†

Session Chair*: David Kosson, Vanderbilt University
Session Co-Chair*: Christine Langton, Savannah River National Laboratory

TIME	TITLE	SPEAKER	ORGANIZATION
10:45a	Session 1A Overview	S. Thorneloe,[1] H. Pope[2] and M. Ewart[2]	[1]EPA-ORD [2]DOE-SR
11:00a	Session 1B Overview	D. Kosson[1] and M. Denham[2]	[1]Vanderbilt University [2]Savannah River National Laboratory
11:15a	Session 2A Overview	F. Sanchez[1] and G. Flach[2]	[1]Vanderbilt University [2]Savannah River National Laboratory
11:30a	Session 2B Overview	C. Langton[1] and G. Baldwin[2]	[1]Savannah River National Laboratory [2]Washington Savannah River Company
11:45a	Session 3A Overview	A. Garrabrants[1] and D. Esh[2]	[1]Vanderbilt University [2]US Nuclear Regulatory Commission
12:00	Closing Remarks	D. Kosson[1] and C. Langton[2]	[1]Vanderbilt University [2]Savannah River National Laboratory
12:15	Adjourn	J. E. Marra	Savannah River National Laboratory

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†Status and DOE-EM Program Needs